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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,706	11/04/2003	Yoshikazu Takahashi	TAI 134-DIV	6264

7590 10/01/2004  
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EXAMINER
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WILLIAMS, ALEXANDER O

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/699,706

**Applicant(s)**

TAKAHASHI ET AL.

**Examiner**

Alexander O Williams

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,4,6,8,10,12,14,16 and 19-49 is/are pending in the application.
- 4a) Of the above claim(s) 19-26,28,29,31,32,43 and 44 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,4,6,8,10,12,14 and 16 is/are allowed.
- 6) ☒ Claim(s) 27,30,33 and 34 is/are rejected.
- 7) ☒ Claim(s) 35-42 and 45-49 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/4/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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Serial Number: 10/699706 Attorney's Docket #: TAI 134DIV

Filing Date: 11/4/2003; claimed foreign priority to 12/7/2001 and 5/16/2001

Applicant: Takahashi et al.

Examiner: Alexander Williams

This application is a divisional application of serial U.S. Application serial # 10/125444, filed April 19, 2002.

Applicant's election of species of figures 2A and 2B (claims 2, 4, 6, 8, 10, 12, 14, 16, 27, 30, 33-42 and 45-49), filed 7/22/04, has been acknowledged.

This application contains claims 19-26, 28, 29, 31, 32, 43 and 44 drawn to an invention non-elected without traverse. A complete response to the final rejection must include cancellation of non-elected claims or other appropriate action (see 37 CFR § 1.144 & MPEP § 821.01).

Applicant's Pre-Amendment filed 11/4/03 has been acknowledged.

Claims 1, 3, 5, 7, 9, 11, 13, 15, 17 and 18 have been canceled.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

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The disclosure is objected to because of the following informalities: Applicant's divisional application information should be updated.

Appropriate correction is required.

The drawings are objected to because the drawings of figures 2a or 2b DOES NOT show "103" as detailed in the specification.

Correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27 and 30 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamashita et al. (U.S. Patent # 5,777,387).

27. Yamashita et al. (figures 1(a) to 7(b)) specifically figures 7a and 7b show a tape carrier comprising: a base tape **2** having a device hole **2c**; lands **8b**, which are provided on the base tape and arranged in a grid pattern; a plurality of leads **3,5**, each having an outer lead portion and an inner lead portion, which outer lead portions are connected to the plurality of lands; a solder resist **8** provided on the lead which includes an opening through which the land is exposed; and a metal ball **9** which is connected to the land via the opening, wherein the inner lead portions, which extend from the periphery of the device hole toward the center of the device hole, having several different lengths.

30. A tape carrier according to claim 27, Yamashita et al. show wherein the inner lead portions having different lengths are disposed regularly.

Claims 33 and 34 are rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al. (U.S. Patent # 6,087,722).

33. Lee et al. (figures 1 to 6) specifically figure 5 show a semiconductor package **50**, comprising: a tape carrier **34**; a first semiconductor element **11** mounted on the tape carrier; a second semiconductor element **21** mounted on the tape carrier; a short lead **44** provided on the tape carrier, and being connected to the first semiconductor element; and a long lead **43** provided on the tape carrier, and being connected to the second semiconductor element.

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34. A semiconductor package recited in claim 33, Lee et al. show wherein the second semiconductor element is disposed on the first semiconductor element.

Claims 33 and 34 are rejected under 35 U.S.C. § 102(b) as being anticipated by Waki et al. (U.S. Patent 3 5,530,292).

33. Waki et al. (figures 1 to 21) specifically figure 15 show a semiconductor package, comprising: a tape carrier **91**; a first semiconductor element **52b** mounted on the tape carrier; a second semiconductor element **54a** mounted on the tape carrier; a short lead **98b** provided on the tape carrier, and being connected to the first semiconductor element; and a long lead **97a** provided on the tape carrier, and being connected to the second semiconductor element.

34. A semiconductor package recited in claim 33, Waki et al. show wherein the second semiconductor element is disposed on the first semiconductor element.

Claims 33 and 34 are rejected under 35 U.S.C. § 102(e) as being anticipated by Nakamura et al. (U.S. Patent # 6,476,467 B2).

33. Nakamura et al. (figures 1 to 28) specifically **figure 24** show a semiconductor package, comprising: a tape carrier **4**; a first semiconductor element **2** mounted on the tape carrier; a second semiconductor element **2** mounted on the tape carrier; a short lead (**lower 5b**) provided on the tape carrier, and being connected to the first semiconductor element; and a long lead (**upper 5b**) provided on the tape carrier, and being connected to the second semiconductor element.

34. A semiconductor package recited in claim 33, Nakamura et al. show wherein the second semiconductor element is disposed on the first semiconductor element.

Claims 2, 4, 6, 8, 10, 12, 14 and 16 allowed.

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Claims 35-42 and 45-49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Any such indication as to the allowability of these claims is reserved until which time a suitable response is filed.

The listed references are cited as of interest to this application, but not applied at this time.

Field of Search	Date
U.S. Class and subclass: 257/666,673,676,685,686,696,692,693,698,723,777,784, 786,783	9/28/04
Other Documentation: foreign patents and literature in 257/666,673,676,685,686,696,692,693,698,723,777,784, 786,783	9/28/04
Electronic data base(s): U.S. Patents EAST	9/28/04

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander O Williams whose telephone number is (571) 272 1924. The examiner can normally be reached on M-F 6:30-7:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272 1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AOW  
9/28/04

A handwritten signature in black ink, appearing to read 'AOW', with a stylized flourish at the end.

Primary Patent Examiner  
Alexander O. Williams